

Lift off for wind power solutions

Service operation with LIFTKET electric chain hoist

Wind turbines are getting bigger and heavier, so it makes sense that the machinery and techniques used to lift them should evolve too. Electric chain hoists have been used within the industry since the early days, so what changes are being seen and how are companies like LIFTKET adapting their products to suit?

As early as the mid-1980s, a new branch of industry developed, initially starting in Europe, energy generation from wind power. LIFTKET established its hoists in this industry from the very beginning and over the years has become one of the market leaders in the field of electric chain hoists for wind power applications. In close cooperation with customers operating worldwide, its tailor-made solutions are designed near Leipzig in Germany.

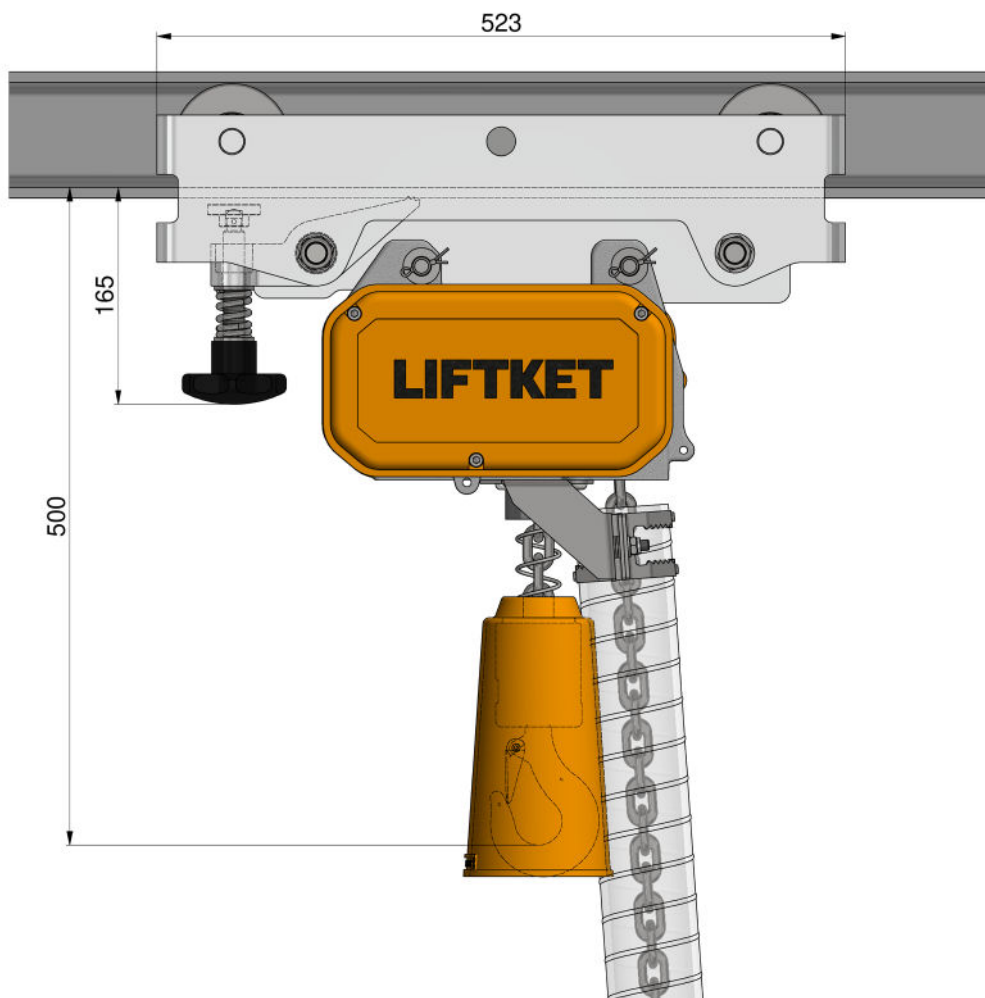
In the wind power sector, it is important for customers to develop solutions for individual requirements. This is one of its core competences, with its quality Made in Germany products being adaptable to the versatile requirements of the wind power sector.

'We were the first supplier of service cranes, nowadays supplying not only a lifting device, but a complete service crane that meets the requirements of the wind industry most effectively,' says CEO Jürgen Dlugi. 'In Wurzen, around 250 employees ensure that thousands of our products leave the factory every month. Every single electric chain hoist has been designed, developed, produced, and tested with its actual capacity here.'

In classic wind turbines in the onshore sector, the electric chain hoist is usually installed as a stationary 'service crane' and used for service and maintenance work. However, it can also be used as a mobile crane, for tasks such as repairs and the replacement of turbine parts.

The company supplies products for different load capacities and lifting heights. One of the standard products is designed for a lifting height of 200m with a load capacity of 800kg and a lifting speed of 20m/min. However, these are far from the limits of the products. Depending on the requirements, different lifting heights can also be served, with lifting capacities of several tonnes realised with the compact products from LIFTKET. And now, the company is working with customers on solutions up to a lifting height of 230m which could soon be available on the market.

A compact design is essential, especially in wind turbines where space is very limited. In addition, there is a wide variety of installation situations to which the product must be adapted.



Compact electric chain hoist solution for wind power applications

In addition to the onshore sector, the company also offers adequate solutions for offshore plants.

The company provides a plug & play solution for simplified installation. The prefabricated installation solution can be used worldwide, as it is designed for voltage levels from 110 to 690V and also for 50 or 60Hz. In addition, all adjustment ranges for beam widths can be covered to ensure correct installation.

In general, the chain hoist can be adapted to the different turbine situations by a wide variety of accessories. There are different solutions with trolleys or cranes, chain boxes and tube solutions.

In this area, there are various standard solutions for different situations. However, thanks to in-house engineers, the company always finds the perfect solution when it comes to challenging installations. This was the case recently with an individual customer solution for an electric chain hoist, including a metal chain box for a lifting height of 200m and a load capacity of 1.8 tons. This special solution is used to pull up the high voltage cable in the tower when setting up the wind turbine. As this solution is used for a mobile application, the chain hoist can be stored in the chain box and then transported as one unit.

Another option are tube solutions instead of chain boxes at the unit, which then guide the chain into the bottom of the nacelle. Since enormous heights sometimes have to be overcome on wind turbines for maintenance work, LIFTKET also supplies solutions with radio remote control with several transmitters to reduce waiting times and thus also costs. To prevent damage to the inside of the tower when lifting by the load hook, an electric chain hoist for wind power applications is equipped with a 'rubber sleeve'. It may also be necessary to replace an existing unit, e.g. due to age. Here, too, the company offers simple solutions that

even make the replacement of 'third-party old equipment' possible.

In addition to the onshore sector, the company also offers adequate solutions for offshore plants. Due to often rough conditions, the products usually have to withstand heavy strain. The main difference in the offshore sector is that the product requirements are much higher. Special corrosion protection is required, other painting is needed, and in general, other materials are sometimes used. For such applications, its products can be equipped with stainless steel chains and hooks, for example, to avoid corrosion and the electric chain hoist can be equipped with a more robust aluminium version, instead of the usual plastic caps.

Due to the worldwide use of electric chain hoists, global support is of course also a major issue. Thanks to its extensive partner and subsidiary network, the company can guarantee worldwide technical support. The availability of spare parts for almost all products ever built also offers an enormous level of service, rounded off by full project support from idea to final implementation.

LIFTKET also delivers a tailor-made service and training concepts for its customers. It has established its own training centre, the LIFTKADEMIE. Maintenance work for hoisting equipment must be carried out by trained and authorised professionals only and employees must have theoretical training as well as experience in the field of cranes and hoists. They must have excellent know-how of the special regulations and must be able to decide whether the lifting equipment is in safe working condition or not.

The training centre provides customers and their employees with the necessary know-how to ensure safe working on and

with electric chain hoists. Three standard training courses are available: Repair & Maintenance, Train the Trainer and Configurator Training. The Configurator training provides an insight into all the functions of the new online tool, in which you can configure your desired chain hoist in just a few clicks. This and the Repair & Maintenance Training can easily be offered as online training.

With the successfully completed Repair & Maintenance course, each participant receives a certificate which must be renewed after two years. In this way, it ensures that staff are always trained in the latest technical developments. Specially tailored training courses are also provided and can be held either at the in-house training centre in Wurzen or at the customer's site worldwide.

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About LIFTKET

LIFTKET moves any load from up to 25,000kg and 200m or more, safely and everywhere. The product range offers standardised hoists, as well as highly specialised solutions. Founded in 1948, the company's founder Dietrich Hoffmann set the standard for electric chain hoists over three generations, which are now used worldwide in three different business areas. Numerous customers and partners in over 65 countries rely on its products. Safety, durability, ease of maintenance, service and a fair price/performance ratio are particularly valued. Worldwide, approximately 600,000 LIFTKET electric chain hoists are in use in over 40 countries.